

SCIENCE ADVISORY BOARD
Research Strategies Advisory Committee Meeting
U.S. Environmental Protection Agency Headquarters
Ariel Rios Building Room 6013
1200 Pennsylvania Avenue, NW
Washington, DC
March 6 & 7, 2001

Committee: Research Strategies Advisory Committee (RSAC) of the U.S. Environmental Protection Agency's Science Advisory Board (SAB). (See Roster - Attachment A.)

Date and Time: Tuesday and Wednesday, March 6 and 7, 2001 8:30 am to 5:00 p.m. (See Federal register Notice - Attachment B.)

Location: The meeting was held at the U.S. Environmental Protection Agency Headquarters Ariel Rios Building, Room 6013, 1200 Pennsylvania Avenue, NW Washington, DC

Purpose: To receive briefings on the Agency's budget planning, peer review and strategic planning processes and to plan committee activities for the upcoming year. (See Meeting Agenda - Attachment C.)

I. Attendees

Dr. Raymond Loehr, Incoming Chair
Dr. William Adams
Dr. Richard J. Bull
Dr. Philip Hopke
Dr. Maria Morandi
Dr. Ishwar Murarka
Dr. William Smith (March 7)
Dr. James Watson
Dr. Lauren Zeise

RSAC Members Not in Attendance

Dr. W. Randall Seeker, Past Chair
Dr. Al Maki
Dr. Genevieve Matanoski
Dr. William Smith (March 6)
Dr. Mark Utell

EPA Staff

Dr. John "Jack" R. Fowle III, Designated Federal Officer
Ms. Wanda Fields, Management Assistant, RSAC
Dr. Donald Barnes

Ms. Lisa Matthews
Dr. Kevin Teichman
Ms. Connie Bosma
Dr. Kerry Dearfield
Mr. Jeffrey Morris
Mr. David Zeigele
Mr. Mike Feldman
Ms. Lisa Ayala
Ms. Amy Battaglia
Mr. Lek Kadel

Others present in Room 6013 and on the phone (as they identified themselves) are listed on the sign-in sheet (Attachment A).

Meeting Summary

The meeting proceeded in accord with the agenda (Attachment B).

Welcome and Purpose of Meeting -- Dr. Raymond Loehr, RSAC Chair, brought the meeting to order at 8:30 am. He welcomed everyone and thanked them for braving the elements to be here today. He thanked the DFO for the detailed minutes of the last meeting and referred the members to those minutes as the basis for the committee's activities. He asked the members to think about how we can use this meeting to help us produce our products, e.g. peer review. He asked that if the members had any qualifications, modifications etc. to the minutes give them to the DFO and that the DFO would put out the final minutes when they are completed. He then asked Dr. Jack Fowle, RSAC DFO to discuss Administrative issues.

Dr. Donald Barnes, SAB Staff Director then updated the Committee about recent developments in EPA and the SAB. Starting with the "old" he noted that Ms. Browner has moved to the Aspen Institute (see handout). He also handed out a list of contacts for the Administrator's Office, noting that the new Administrator preferred to be addressed as Governor Whitman. Eileen McGinnis is the chief of staff. She was formerly head of the policy office in New Jersey. Susan Spencer is the Deputy Chief of Staff. Tom Gibson is the new head of OPEI, Robert Fabricant is the General Counsel, and Rick Otis is the leader of the transition team. John Howard has moved on to CEQ. To date the roster of the new senior management team is not very long.

Mr. Ehlers bill, HR 64 has been introduced. It would create a Deputy for Science and a 6-year term for the Assistant Administrator for Research and Development. Dr. Barnes noted that much of what is in the bill is not unfamiliar to RSAC and that is not by happenstance – RSAC makes a difference. He noted that in talks to folks on the Hill in the last month there is no opposition to it. The bill has been referred to the House Science Committee's Subcommittee on Environment, Technology and Standards. The general mood in the Agency is optimistic thanks to recent court decisions, the fact that the Administrator is staying the course with certain

programs from past because they make sense, and her on target announcements.

Dr. Barnes noted that Linda Fisher is in the running for Deputy of EPA. If true this is a positive sign because she knows about the Agency and its directions. All in all this is a great time for RSAC to offer new ideas.

Dr. Loehr then introduced Mr. Henry Longest, Acting ORD Assistant Administrator, who updated RSAC about ORD's transition to the new Administration, and he set the stage to prepare for the budget review slated for early May. ORD really does appreciate all that RSAC does. It has been helpful in two respects – with the Hill and because RSAC's advice helps ORD think about what they should do. He can't comment on the budget because it won't be released until April 9th. He sees the ORD budget staying about where it is now. ORD knows what they need to do to stay on course. Their two top priorities are PM research and drinking water. He noted that the Administrator has been busy. She went to Italy last week for G8 meeting. She is the spokesperson in this Administration for environmental issues. This is a good sign as in the last Administration environmental issues were negotiated by the Department of State.

Mr. Longest noted that multiyear planning is helping ORD decide where they are headed. They would like RSAC's assistance to help evaluate their success in terms of outcomes.

When asked about what RSAC should pay attention to as it reviews the budget, Mr. Longest said that the linkages between exposure and effects to make sure A leads to B and that B leads to C, etc. Such linkages are needed to help ORD move from output to outcome measures.

In response to a comment that what ORD calls a research plan is more of an elaboration of a strategy than a plan (e.g., they do not contain deliverables, allocation of resources, etc.) Mr. Longest indicated that he "hears" the comment and that it's helpful.

In response to a question about whether ORD is able to tell its story to Congress in an understandable way, Mr. Longest said that Congress still wants links to the old budget format. In its testimony, RSAC could help by focusing on GPRA and whether the ORD budget makes sense or not.

When asked about how ORD insures a balance between core- and problem-driven research, Mr. Longest said that around 45% of the budget is for core-research and that about 55% of the budget is for problem-driven work. To attract the best people ORD needs to do core research. The programs push back a bit to try to get more resources for their problem-driven work, but they recognize the need for core research. As might be expected the pressures are greatest when new legislation is passed.

When it was pointed out that RSAC had trouble understanding why ORD defined some projects as core- as others as problem-driven Mr. Longest said that he would make a note and get back to the Committee to discuss this issue when it reviewed the FY '02 budget submission.

INSTRUCTION 1: Dr. Fowle should work with ORD to set up a discussion about how they define core- and problem-driven research projects

Public Comment – Dr. Daniel M. Byrd, of Consultants in Toxicology, Risk Assessment and Product Safety made a Public Comment. He noted that RSAC has an important mission this year. He offered some possibilities that RSAC might consider if it wanted to identify cases where Peer Review was not as good as it might have been (see handout). He observed that in order to conduct contractor run meetings legally, they have to say they really are not a committee and that the meeting is being held for the benefit of the contractor. He likes the way things are going but not everything is perfect. He suggested that RSAC testify to Congress that FACA should be done away with or followed consistently.

Dr. Byrd said that he believes that many members of the public confuse contractor-run peer review meetings with SAB meetings. He suggested that RSAC might consider getting a formal member from the SAP on its committee, at least to look at the implementation of the Peer Review process, and perhaps someone from ORD's Board of Scientific Counselors (BOSC) too.

Review of Peer Review Implementation -- Dr. Loehr introduced Ms. Connie Bosma Office of Science Policy Program Support Staff Chief. She suggested that for this phase of the review RSAC examine 3 case studies or less. For each case study selected, she suggested that RSAC look at:

- a. the peer review comments
- b. how the Agency handled the comments
- c. how they changed the document to reflect the comments
- d. how the changed document impacted Agency decisions
- e. lessons learned and implications for the future
- f. Step function
- g. possible case studies include
 - i) Report on Bioaccumulation of Mercury - Mr. Erik Winchester, Environmental Scientist, Office of Water
 - ii) Human Health Methodology for Deriving Ambient Water Quality Criteria - Mr. Denis Borum, Environmental Scientist, Office of Water
 - iii) Chemical Assessment for Atrazine - Dr. Randy Perfetti, Associate Director, Health Effects Division, Office of Pesticide Programs
 - iv) Risk Characterization Handbook - Dr. Jack Fowle, Deputy Staff Director, Office of the Science Advisory Board, Office of the Administrator

Ms. Bosma briefly summarized what EPA does to implement the Peer Review policy. Then the case study leads gave a 5-10 minute overview of their document. (See handout).

In the question and answers that followed several points were raised:

- a. Are there uniform requirements to make the peer review comments public?
 - i) they can be obtained under FOIA
 - ii) the new version of the handbook says when peer review is done EPA should

- write up a summary of the review and of the comments
 - iii) the OPP SAP has a docket with the public comments
 - iv) RSAC could comment on this matter
 - b. How does the Agency know that the right things are being peer reviewed?
 - i) the Office of Science Policy (OSP) staff in ORD evaluate this when they examine the peer review data base, especially those products identified as not needing to be peer reviewed and why they were not peer reviewed
 - ii) they also comment when see that a product was peer reviewed but don't agree with the method by which it was peer reviewed

Erik Winchester discussed the methyl mercury bioaccumulation factors case study. (See handout). Questions included:

- a. How long did it take?
 - i) about 4 months
- b) You indicated that the document wasn't changed as a result of the peer review. Do you still have one water concentration for BAF?
 - i) no, have a single value for fish tissue instead and are refining the BAFs
 - ii) did publish them so if anyone wanted to use a local level they could
- c) Will the locally derived BAFs be peer reviewed
 - i) Such a review is encouraged but not required
- d) Sometimes peer review on controversial issues could go either way. How do you decide whether to change the document or not?
 - i) if it is a case of disagreement about how to proceed it is likely that another panel would also disagree
 - ii) if it is because there is a need for additional expertise then the Agency would reconvene an augmented panel
 - iii) the Agency has the option to disagree with the advice even if there is unanimity on the peer review panel
- e) The review clearly identifies a need for research and development work. Was it referred to ORD? Is there a formal mechanism to do this?
 - i) don't know if a formal mechanism, but in this case the recommended research is being done
- f) in terms of the research recommendations, were they made in such a way as to be given to ORD?
 - i) if it went through the formal planning process it would go through OW's Science Advisor Dr. Kuzmack and then to ORD
 - ii) in this case, this was a preexisting issue, and both OW and Air previously informed ORD that this was an important area for research
 - iii) the way research needs come to ORD is complex. There is not a single direct link from each product to ORD for research needs
- g) If a member of the public asked for information about the review what would they get?
 - i) they would be sent to the official docket
 - ii) there is a move to get the information published on the internet

The Committee took a break at 10:35 a.m. and reconvened 10:50 a.m.

Denis Borum discussed the methodology for deriving ambient water quality criteria for the protection of human health (see handout). Questions included:

- a) In the selection of the peer review panels did you provide criteria to the contractor?
 - i) yes, and the contractor reviewed the candidates with EPA to make sure they had the right expertise. They asked for input about the 10-20 candidates per panel (e.g. health, exposure, etc.)
- b) How long did it take to do this review?
 - i) 9 months, from January to September 1999
- c) with respect to bioaccumulation factors (BAF) would you recommend that this committee look at both case studies at once
 - i) yes, it would be good to look at both together because the BAF procedure predates the RA guidelines
- d) what was the cost of the review and what fraction of the budget was taken up by writing the reports
 - i) about \$150 K . Started the process in 1992 so the review itself took about 10 - 15% of the time
- e) how do peer reviews overlap and how do you constrain the issues raised by the reviewers?
 - i) focus on the application of risk assessment guidelines to this particular program
- f) what would be the driving force for asking a contractor to do PR as opposed to the SAB?
 - i) The Office of Water (OW) has a peer review contract in place. OW did come to SAB with issues from the national workshop and factored those in the document
- g) the SAB is also in place how do you decide which to use?
 - i) due complexity wanted to have means to bring in experts of all sorts
- h) in OW's approach, they only allowed public comments after the meaty discussions had taken place. Our experience is that when you offer public comments at the end of the day it raises at least the appearance of conflict. Can you comment?
 - i) the reviewers really had their work cut out for them, and the next day OW had scheduled an all-day stakeholder meeting and 120-day public comment period

Dr. Randy Perfetti, Associate Director, Health Effects Division, Office of Pesticide Programs discussed the chemical assessment for Atrazine (see handout). As a result of the SAP's review, OPP now thinks of atrazine as not likely as a human carcinogen. All the information is on the world wide web. Questions included:

- a) Are SAP panel members are chosen by the Administrator like the SAB?
 - i) yes, but OPP augments the SAP with consultants
- b) The panel seemed to reach a remarkable degree of consensus
 - i) we were stunned by the consensus

- c) how do you chose whether to use a contractor driven review or SAP or SAB, etc. Are your criteria the importance of the issue, timeliness, etc.
 - i) 99/100 of their issues go to the SAP. Occasionally do a letter review (i.e., they have done 2 in the past 2 years) because of tight deadlines
- d) do you think there should be an explicit set of criteria for agency consideration?
 - i) that is the SAB's decision. He is happy to have the SAP devoted to OPP issues. Other POs might want to have such an advisory group too
 - ii) Dr. Preuss noted that the Peer Review handbook contains the criteria such as those laid out by Dr. Morandi
 - iii) Dr. Kuzmack noted that the database identifies about 1000 products that are peer reviewed per year
 - iv) Ms. Bosma referred the members to p 39 of the Peer Review Handbook for the criteria
- e) what was the size of the panel and what fraction were consultants?
 - i) there were 20 or more on the panel and 2 of them were SAP members from the standing SAP committee. The rest were consultants. Of these, 3 were recommended by NRDC
- f) how is the selection made?
 - i) OPP consults with ORD scientists who say we need to have someone who knows about X, Y or Z. They had spoken with the reviewers to see if interested
- g) it seems that the SAP culture is different from the SAB culture
 - i) agreed

Mr. Robert Flaak, Team Leader, Committee Operations Staff, Science Advisory Board, relieved Dr. Jack Fowle, Deputy Staff Director, Office of the Science Advisory Board, Office of the Administrator as DFO. Dr. Fowle then discussed the peer review of the Risk Characterization Handbook - (see handouts). Dr. Fowle gave an overview of the Risk Characterization Policy and development of the RC Handbook (see handout/overhead slides for details):

- a) the draft handbook was ready for peer review in 1998
- b) a contractor, ERG, was used instead of the SAB due to the perceived time delay in completing an SAB review
- c) charge questions and how they were developed
- d) responses from the peer reviewers and what that meant for the revision of the draft RC Handbook
- e) summary of the content of the final version of the RC Handbook

Questions included:

- a) Who is audience for handbook
 - i) EPA risk assessors and risk managers, but it was designed to be able to be used and/or understood by all. There was extensive internal vetting of Handbook.
- b) Did "bias" mean bias in people or data?
 - i) both

Dr. Loehr then asked the committee what activities they would like to pursue and reminded them that we need people who have the time and will spend the time

- a) BAF for deriving ambient water quality criteria for the protection of human health pulling in other issues dealing with BAF (Murarka and Bull)
- b) Risk Characterization issue because it gives us a chance to look in the mirror at SAB being slow, etc. (Hopke, Morandi)

It was decided that the committee would consider this and decide it's course of action after lunch

Dr. Loehr then adjourned the committee for lunch at 12:00 pm

RSAC reconvened at 1:00 pm to discuss EPA's multi-year planning efforts.

Multi-year planning – Dr. Peter Preuss, Director of ORD's National Center for Environmental Research and Quality Assurance (NCERQA) introduced Ms. Debbie Detreich the head of ORD's Resource Management and Administration and Acting Director of the Office of Science Policy (OSP), and Mr. Paul Zelinsky who is in charge of the multi-year planning process for ORD. They noted that ORD has talked with RSAC about the multi-year planning several times in the past (see handouts).

Multiyear plans allow ORD to show the impact of cuts, etc. and they provide a framework for integrating across labs and centers with GPRA goals. They largely represent the work done in ORD, but ORD management has asked the ORD planners to incorporate other work that's being done in Program Offices, industry etc. to the extent it is known. In developing these plans ORD made the assumption that the budgets would be flat through FY 2006. Multiyear plans have been drafted and sent back to the teams. Good first drafts are expected by August 2001 with ORD internal reviews conducted throughout the revision process. Questions included:

- a) Is there a plan for an external review – isn't this a product that needs to be peer reviewed?
 - i) yes, they need to be reviewed but there is no plan as of now
- b) Shouldn't there really be a review of the ensemble of multiyear plans to make sure there are the linkages?
 - i) agree. BOSC felt it doesn't have the resources to review all of them
- c) the process is complex starting from the EPA Strategic plan and moving to the ORD Strategic Plan and to Media Specific Strategic plans to the research plans and implementation team activities, etc. However, the research plans do not seem to be plans per se with specifics but rather seem to be a further elaboration of a strategy than we will do X by Y time. The terminology is confusing.
 - i) you are right the plans do not contain specific information about what each lab will do and when

Dr. Preuss then introduced Dr. Lee Mulkey Associate Director for the Water Quality who discussed the Problem-driven (Water Quality) multiyear plan. Dr. Mulkey began by noting that

the Agency is faced with a resource allocation issue. Thus, his guidance to the researchers supported by this plan is that there is little budget for exploratory science. After describing the effort questions included:

- a) there is concern in the drinking water community that little or no coordination with the water quality folks
 - i) that is because the real research issue here is watershed management
- b) was there any integration with the atmospheric folks? EPA needs to bring in both the ecosystem and the atmospheric folks together to address this issue as the air pathway impacts the watershed
 - i) no and we do need more work on this in this plan. Perhaps it could be done in ORD's core research program. For instance, a proposal to identify all watershed segments in the country that were impacted by atmospheric deposition
- c) the program fits in with reviews of the EPEC committee and biocriteria and whether section 304b of the Clean Water Act leads you to protect the environment. You have a real opportunity to make a difference. However, on the flow chart we don't see how the effort makes a difference in water quality. EPA needs to show how it really makes a difference and it needs to show, in the long term, which of the issues are really important and need to be fixed.
 - i) these are important components of Goal 8. The approach should be to look at all aspects
 - ii) the real benefit so far is that all the programs are laid out in a multiyear context. Not completed the loop yet, but can now look out into the future and see some of the linkages. This is very stimulating. The ORD Executive Council spent 6 full days or more going over these – saw where linkages are and where they are missing.
- d) how did the group go about identifying what science was done outside of EPA. How did you acquire this and factor it into the decision making process?
 - i) for this draft we assumed that the people involved know what is going on. We haven't yet planned any formal or informal actions with other groups to capture the information
- e) agree but assumptions do need to be checked; will there be checks to see if it so?
 - i) new work in ORD's NRMRL lab is starting up a team to look at pathogen control and to set up an interaction with other agencies
- f) RSAC is looking at how does one acquire information from elsewhere and use it. How can we work with the Agency on this
 - i) depends on the extent of RSAC's interest and how much time it wants to spend on this issue. To give the committee a taste of ORD's efforts they have contracted with HEI to identify all PM research anywhere in the world. They are also looking at where research is conducted on endocrine disruptors, and drinking water. However, these efforts are costly so ORD must pick and chose which efforts to track. ORD also is teamworking with Margaret Leinen at the National Science Foundation who is in charge of NSF's ecological programs. She and Preuss are hosting a conference to

- look at ecological research programs across the world.
- g) the Clean Water Act gets in the way of Drinking Water protection because of the lack of a health focus in the CWA
 - i) ORD sees the release of pharmaceutical and personal care products into water as important issues for the present and the future and these are issues that OW won't take on

Dr. Preuss then introduced the second speaker Dr. Subhas Sikdar, Director of the NRMRL's Sustainable Technology Division to discuss the core research program on Pollution Prevention & New Technologies. Dr. Sikdar noted that pollution prevention has been an important topic for ORD for about a dozen years. The focus of the early work was on cheerleading (see handouts). They developed a pollution prevention strategy about 3 years ago that was peer reviewed. He described the implementation of that strategy. There are 4 components to it - tools, green chemistry and engineering, environmental technology verification, and environmental systems management. Questions included:

- a) what is the driving force for this kind of research being done inside EPA?
 - i) EPA is the primary Agency to champion the subject and we are more believable if we have tools and methods to suggest to others
- b) how are you drawing on the interest of industry?
 - i) through outreach efforts and contracts and grants such as CRADAs to implement the technologies at the end of ORD's development process. One focus is on the environmental impact of fuel cells
- c) have you talked to BP Amoco because they have made a commitment to fuel cells
 - i) good question about what is the EPA role. ORD paid much attention to what aspect of Pollution Prevention to focus on
- d) what is the annual budget for this program
 - i) probably \$25 million including salaries
- e) how are the projects selected?
 - i) to a point each researcher has a lot of flexibility in deciding what direction to take his/her program but ORD has selected the large areas to focus on and then give the researchers flexibility in deciding what to do within those broad areas
 - ii) the Office of Pollution Prevention in OPPTS is also consulted as they are the champion for this research in EPA
- f) there is always the issue of measuring success in the various programs. We seem to be missing the critical set of products that are expected to be produced and an understanding of what is their significant impact and how will that impact be measured
 - i) this will be discussed in Dr. Oppelt's upcoming presentation on performance metrics
- g) what kind of a review did the strategy receive
 - i) it received internal and SAB reviews

At 3:00 pm RSAC adjourned for a 15 minute break

Performance Metrics for Science at EPA -- Dr. Timothy Oppelt, Director of NRMRL noted that the development of good performance metrics is a challenge that ORD has been trying to get its arms around, especially with the advent of the Government Performance and Results Act (GPRA -- see handouts). The NAS has advised that meaningful evaluations of research program outcomes, effectiveness and impact are possible, but that direct links to environmental or public health improvements are very difficult to document. This is especially true for EPA actions where direct links to specific environmental or public health improvements are difficult to measure and document. Different metrics may be appropriate for core- compared to problem-driven research with respect to how to measure quality, relevance, leadership and impact, and the outcomes may be negative for core research because it is hard to show an impact(s). The Office of the Inspector General (OIG) has a new division, with some 60 people to look at performance metrics as a way to evaluate programs. The million dollar question is how do you make links between risk management actions and observed outcomes. ORD does not measure outcomes now, it measures outputs. Should it measure outcomes? To help ORD think about this he posed questions to the RSAC and asked for their advice about:

- a) How do you measure outcomes of your science programs?
- b) What other metrics might be appropriate?
- c) Are there other science organizations to benchmark?
- d) Is the OIG framework appropriate?

And he asked for RSACs advice about:

- a) at what programmatic level should performance metrics be applied? What timeframe is appropriate for the application of metrics?
- b) how should performance metrics be incorporated into research program design and implementation?
- c) to what extent should ORD engage in environmental and public health accountability research?

Comments included:

- a) it's hard to justify a program unless you have some sense of the costs of the problem it is trying to address.
- b) there is also the issue of the general level of comfort provided to the public that EPA is in the business at all
- c) not so sure that the overall title is the right one. To put the NAS reports into context EPA might want to think about outcomes in terms of environmental knowledge development. The whole concept of core vs. problem-driven used at EPA derives from the NRC report that Dr. Loehr chaired. One of the performance metrics for core was developing knowledge that could be moved and applied to the problem-driven issues. This is implicit in the NAS reports but not explicit. The core research results in an outcome if it moves something forward.
- d) with respect to Figure 2 in Dr. Mulkey's handouts, reversing the uncertainties is a metric. If you could reduce the uncertainties by knowledge development you could show an outcome
- e) benchmarking is important. Go and talk to the folks in industry. For instance, under performance metrics questions, it sure helps in industry if a CEO comes in and

says we're going to get out of landfilling this material by 2010 and no longer discharge wastewater by 2010. Creating a demand function drives people towards that helps find solutions for the impossible

- f) like the concept of the flow of knowledge. Also a lot of what is accomplished is not intended

Dr. Preuss observed that the next question in the evaluation of performance metrics is the "so what?" question. Did we impact people's health? If we can't measure the health endpoints can we move back up the causality chain? ORD would like feedback from RSAC at both these levels. Comments included:

- a) one is the metric for research and the other is the metric for EPA's programs
 - i) we have to be opportunistic (e.g., look at the incidence of stomach upset in a community before and after filtration is applied)
- b) part of what you are trying to do has to do with the advance of science in general and that takes a long time
- c) there is an axiom in science, don't try to answer questions that can't be answered. Industry has always focused on writing goals in such a way that can be answered
- d) for each project have an hypothesis before starting. Looking at the Figure from Dr. Oppelt, is there a sharp articulation of the hypothesis for each of the items? A metric to look at is "what is the hypothesis?"
- e) also identifying what you have to know to answer the question
- f) with the change in regulation for PM you are changing the hypothesis. I am going to see a reduced level of mortality

Dr. Oppelt asked about the committee's objective, and where would the committee like to go with this? What do you see that ORD needs to do to structure the program better, design research, etc. Comments included:

- a) we got into it because wanted to understand because we would be asked during hearings, etc. Want some thoughts so there are no surprises to the Agency about what we'd say. We could always go to a letter commentary, summary, etc. It flows from the multi-year planning effort
- b) the more we know about your planning the more we can comment on the ORD budget
- c) general interest is that we are supportive of GPRA over time and want to continue to support it. If you don't continue to think about outcome you always focus on how much more regulation. For instance, with respect to Salmonid fish impacts EPA focuses on chemical by chemical instead of a holistic approach

Dr. Preuss stated that ORD wants to put two action items on the RSAC plate:

- a) The ORD grants program seems to be under the microscope. Some feel that giving money to academic institutions is waste of money. SAB is helping evaluate waters and watershed program – RSAC may want to coordinate this effort
- b) ORD is contracting with NAS to do a long term program to address the same issues. NAS said "no" that they can't do it without doing a program by program evaluation and using this to see if criteria can be developed and applied more

broadly. They have consented to have someone from RSAC be on their committee. RSAC may wish to have someone participate.

With respect to the grants program, Ms. Sanzone, Designated Federal Officer for the SAB's Environmental Processes and Effects Committee (EPEC) noted that EPEC is reviewing ORD's Science To Achieve Results (STAR) Waters and Watersheds grants program in April. She recommended a connection with RSAC and has invited Randy Seeker to come to bring the thinking. May have to reevaluate because he is not here. She felt that RSAC is a better home to carry this forward. Other comments to Dr. Preuss' recommendation included:

- a) Dr. Oppelt's figure lists 4 items – shouldn't sound science be listed too since it always comes up. It makes sense for RSAC to be involved from this perspective because the committee can comment on what has been the impact on EPA program offices and regulations and go broader to EPA's overarching mission
- b) however, don't want to precipitate the use of certain science before its time
- c) Dr. Barnes and Mr. Longest talked about a new day at EPA. Governor Whitman has said that it's not an air problem or a water problem its an environmental problem. There might be some who want to narrow issues to media like air and water, but we need to look at broader issues. Regarding where to start the answer is everywhere as the ways pollutants enter the environment is analogous to the way streets feed into a highway. It is a systems issue
- d) what is this issue about Congress and GPRA
 - i) when EPA took ORD's budget from one place and put it across 6 goals now hard for them to track. What EPA did was cross walk the new budget to the old budget structure. Now Congress feels pretty comfortable. There are tradeoffs between continuity and flexibility.
 - ii) when you next meet, will have a better sense of the 2002 budget and now have a sense of the 2001 budget
- e) how can RSAC provide advice about the 2003 budget?
 - i) what's most helpful from outside advisors; what is most helpful is guidance in general terms? Can never share the targets from OMB and internal Agency targets
- f) this is in keeping with the strategies component of RSAC; we don't need to know the exact dollar amounts
 - i) think about giving advice before the Administration has made its mind
 - ii) Mr. Calvert noted marginal improvement in performance measures from year to year. Looking backwards using performance metrics might be a good idea
- g) there are other questions we need to ask about performance and performance metrics.

Dr. Loehr asked which if any of the peer review examples should the Committee tackle. Comments included:

- a) are we looking at the best and should we look at some bad ones too
- b) with the new administration we could say look peer review has made a difference;

keep it up, and down the road we may take a second look and have more specific examples

- c) in addition to what's on the table we need to look at the Peer Review handbook and have some commentary about the OSP review of the policy. Did they review it?
- d) Hopke and Morandi will work on the Risk Characterization case study (Hopke lead)
- e) Loehr hopes that by the May meeting the members would report on the status of their efforts and by the end of June each would have something for the entire Committee to review so that by early Fall the committee would have something final
- f) what about the structure? Do they need to be consistent?
- g) Murarka, Adams, Seeker and Zeise will work on a review of the combined BAF peer reviews
- h) if it turns out that we will not be doing the 02 budget review do we comment on the '03 budget? To whom?
- i) be attuned to this and keep ready

The committee adjourned at 5:28 pm

On Wednesday, March 7, 2001 Dr. Loehr reconvened the Committee at 8:30 am.

Consultation on National Program Directors and Obtaining, Evaluating and Using Science from All Sources -- At its December meeting the RSAC asked the Agency to inform them about the National Program Director process established by ORD to manage large cross-cutting programs, and they asked to be informed about how the Agency gets science from other sources including:

- a) what collaborations exist within EPA and
 - i) Between EPA and other Federal, State and Local Governments
 - ii) Between EPA and other organizations
- b) what philosophy does the Agency apply (i.e. formal guidelines, written points to consider, culture, etc.) to decide which collaborations to establish, with whom and when

During this consultation the National Program Directors briefed RSAC about the strengths of this matrix management program and areas where it could be improved. Each briefly described his/her program, how he/she thinks the NPD program works, and their experiences in getting science from various sources within and outside the Agency to support the EPA's mission.

Dr. Fred Hauchman provided an overview of the process. Dr. John Vandenberg focused on interactions with other agencies. Dr. Elaine Francis discussed the international interactions and Dr. Joel Scherago will talk about the Global climate change program (see handouts).

Dr. Hauchman noted:

- a) National program director positions established by ORD for high priority research programs, which include
 - i) global change -- Joel Scherago
 - ii) particulate matter -- John Vandenberg
 - iii) drinking water - Fred Hauchman

- iv) endocrine disruptors – Elaine Francis
 - v) EMAP -- Mike McDonald
- b) NPMs
 - i) provide overall direction and oversight of research programs
 - ii) lead and coordinate the development of research strategies and plans, promote coordination across ORD labs and centers
 - iii) track research and resources to ensure accountability
 - iv) key liaison with internal and external groups including EPA Program Offices and Regions, States, National Advisory Committees, outside research organizations domestic and international, interest groups and other stakeholders.
 - vi) positions were set up 2 to 3 years ago
 - vii) AA for ORD decides which and when
- c) Drinking water research program
 - i) covers a wide range of chemical and microbial contaminants, and health endpoints
 - ii) full regulatory agenda
 - iii) increasing demand for more scientific certainty in drinking water risk assessments
 - iv) intense interest in the research program by the Office of Water and outside stakeholders
 - v) leverage research with outside organizations (AWWARF, NIEHS, CDC)
- d) Drinking water program guided by
 - i) SDWA provisions
 - ii) Research plans and strategies
 - iii) M/DBP research plan 1997
 - iv) Arsenic research plan 1998
 - v) contaminant candidate list research plan 2001 draft June 2001
 - vi) comprehensive drinking water research strategy (under development)
 - vii) multiyear plan (2001 draft)
- e) Drinking water research planning and coordination include management team
 - i) Tim Oppelt
 - ii) Fred Hauchman
 - iii) Research coordination team
 - iv) Other key contacts
- f) The DW NPM (i.e., Dr. Hauchman) is also involved in special activities
 - i) OW/ORD senior management meeting twice a year
 - ii) CCL research implementation workgroup
 - (a) comprised of senior management/staff from ORD and OW
 - (b) mechanism for coordination of research and assessment activities across ORD and OW
 - (c) reviews and provides guidance on CCL research needs and priorities annual work plans
 - iii) National Drinking Water Advisory Council Research Work Group

- iv) research tracking system
 - (a) pilot project beginning with the drinking water program
 - (b) populated with project descriptions for all research within ORD
 - (c) identifies national and international research
 - (d) will be available on the internet under the Environmental Information Management System (EIMS) on the EPA webpage
[Http://www.epa.gov/ord/dw](http://www.epa.gov/ord/dw)

Questions to Dr. Hauchman included:

- a) how might integration with the Clean Water Act and the release of endocrine disruptors into ambient water work?
 - i) they are trying to use the multiyear plans to become aware of related research and to weave and integrate it into future work
 - ii) also hoping to do this in the comprehensive strategy (e.g. pathogens in source waters) Doing a state of the science needs for this effort
- b) what is the NPD's role in peer review?

Dr. John Vandenberg used this question as a way to begin his presentation. He noted:

- a) he is also involved as a last reviewer for the PM criteria document (see handouts)
- b) do effects and exposure research to help with the standard setting and implementation research to help others implement the program
- c) His job is a balancing act between the two
 - i) structured process for standard setting
 - ii) generating research needs throughout the process
 - iii) have an independent but close and well-coordinated relationship with the Air Program Office
- iv) he reviewed the management, research planning (core) team and key staff that help him in the planning process
- v) All are involved in a weekly conference call
- d) Have a direct interest in monitoring
 - i) This area was highlighted by the NAS as an important need to better coordinate the monitoring efforts across the different groups
 - ii) CASAC is heavily involved in reviewing plans for research monitoring interface Also have supervises coordination through the CENR, and with state and local agencies as well as with NARSTO. Have a cross Federal Agency emphasis coordinated under the White House's OSTP which has an air quality research subcommittee that meets every month or two to develop an interagency research strategy.

Questions to Dr. Vandenberg included:

- a) Does the Air program have something similar to the DW research tracking system to identify research conducted outside of EPA?
 - i) HEI has a particulate matter (PM) inventory system which tracks about 500 projects, but within EPA Dr. Hauchman's effort is the pilot project

- b) how are you engaged with international activities?
 - i) heavily involved through participation in meetings
- c) the presentation was very well organized and laid out, but we have trouble figuring out how monitoring for water program is useful. Do you have that same problem for the air program?
 - i) no, routine monitoring has been fundamental to the PM program and is very useful

Dr. Elaine Francis then described her role as NPM coordinating ORD's Endocrine Disruptors program. The points she raised included:

- a) emphasis is on how to coordinate with other countries, but start with the US first
- b) program developed from several research needs workshops in 1995
- c) published peer reviewed research strategy in 1998
<http://www.epa.gov/ord/webpubs/final>
- d) FQPA and SDWA passed about then mandating EPA to develop a screening program that focuses on 3 areas
 - i) better understanding of science
 - ii) determining the extent of the problem
 - iii) support EPA's screening and testing program
- e) nature of the EDCs issue is so broad and complex it necessitates coordinated national and international efforts
- f) she described the management, multiyear planning committee and Goal 8 EDC subcommittee team that supports her efforts
- g) OPPTS is clearly the most interested program office
- h) OW is not interested although they recognize that they have issues in this area
 - i) don't want to spread themselves too thin
 - ii) at the bottom of their priority list
- i) US Federal coordination includes 14 agencies, with EPA vice chair Have their own web site (www.epa.gov/endocrine)
- j) she described the framework for endocrine disruptor research under the CENR
 - i) developed an inventory of Federal Research Projects on this topic
 - ii) over 400 underway
 - iii) expanded to a global inventory
 - iv) held a workshop to present the inventory overlaying this against the framework to identify gaps and where additional research was needed
 - v) published proceedings in 1998
 - vi) set up a multi-agency grants program to get the work done
 - (a) received a number of proposals in wildlife but not for humans
 - (b) EPA, NIEHS, NOAA and DOI co-sponsored the RFA and funded 14-15 grants in 1999
 - (c) the FY 2000 RFA focused on epidemiology
 - (i) it was sponsored by NIOSH, CDC, NIEHS and NCI
 - (ii) got 35 good proposals and will fund 5-7
- k) this is one way they are collaborating with other agencies

- l) on the international side EPA chairs an IPCS committee and OECD
 - i) responsive to a 1997 recommendation of the G8 ministers where children's health was a centerpiece
 - ii) the G8 ministers said need a global inventory and a global state of the science regarding this issue
 - iii) about 8000 projects identified in the inventory
 - iv) the global assessment is expected in 2002
- m) also working with the European Union
 - i) There is an S&T agreement and endocrine disruptors is a priority topic
 - ii) Workshop in 1999 to identify research needs and to link solicitations for research programs (NSF has been successful doing this)
 - iii) Follow-up workshop in Stockholm this June
- n) there are also collaborations with Japan
- o) There have been a series of annual International symposia
- p) Reached a consensus statement supporting coordination of research

Dr. Joel Scherago then described his experiences as the National Program Director for the Global change Research Program. His comments included:

- a) Hard to be a NPD because there are scientific and technical as well as management issues they have to deal with
- b) He discussed program goals, who we serve, program structure, program implementation and management challenges
- c) A few years ago the program was redirected to an assessment program on air quality, water quality, ecosystem health and human health
- d) the focus is on climate variability and change, land use change, and UV radiation
- e) a particular challenge is how to make disinvestments happen as a matrix manager
- f) he serves Congress, USGCRP, IPCC EPA Program & Regional Offices and other Stakeholders to develop a strategy and implementation plan
- g) EPA is part of a larger family of 9 federal agencies
- h) there is close coordination and leveraging of activities
- i) try to eliminate duplication
- j) a new USGCRP 10-year plan is under development
- k) working side by side with the National Academy of Sciences to develop that 10-year plan
- l) the Hill expects that EPA will direct its efforts on a national assessment
- m) three components
 - i) assessments –public/private partnerships with universities
 - ii) Intramural research
 - iii) extramural STAR grant program
- n) he described the criteria for selecting research questions
 - i) dynamic process
 - ii) depends on key knowledge gaps identified in ongoing assessments
 - iii) value of information exercises
 - iv) skills of laboratories vs extramural research community

- o) STAR grants provide ongoing long-term support for selected topic areas
 - i) They augment areas in which ORD has expertise
 - ii) They focus on a limited focus of topic areas consistent with long-term global change program research strategy (i.e., science to support assessments and human dimensions research)
- p) have a clear vision for the program but the challenge is how to implement it

Questions included:

- a) How do you get things done with out line authority? What is it that makes success in this program?
 - i) Dr. Preuss stated that part of the success is picking the best 5 people in ORD. It is because of who these people are - they are experts and they can work with people well.
 - ii) Dr. Vandenberg – noted that it takes a lot of persuasion but in part good open communication. He has a conference call weekly. They meet and talk a lot. Thus people have confidence that their views are heard and they are part of the process
- b) seems that what is missing is some treats. Need some resources to offer. One question RSAC looks at is the budget. How important is it for the NPDs to have some resources to support cross cutting workshops, conference, etc.?
 - i) Dr. Francis – ultimately we all know we have to be accountable. Have GPRA goals, and APGs that they have to meet each year. Most tend to be willing to work cooperatively to get the job done.
 - ii) Dr. Scherago – the question is perfect. Another question to ask is “Is this the best system?”. A lot of credit also goes to the RCT. There is still an accountability issue. Treats are good, but NPDs do not control the budgets. And when trying to produce need to rely on several labs at different times in a staged fashion. GPRA can be as course and crude or as refined as you make it. Need intermediate products. Have success because of good bright well-intentioned people
- c) we must suppose you are getting support from others in the Agency. Where is all that support coming from?
 - i) Dr. Preuss noted that ORD decided to pick NPD only for a handful of key issues. The Assistant Administrator made it clear this was important, these people are to be listened too. The success started with the AA’s commitment. But also there is a Laboratory Center Director for each one of these issues – an executive lead who can help smooth the issues that arise. We’ve given you a very happy face this morning. There are still some real problems to the process but in spite these are very successful efforts.
- d) really impressed with the idea and how implemented. They are really making a difference for the research program. It needs to be supported and there are things that could be recommended by this committee to make it better
- e) you said that the Administrator will focus even more on because of her emphasis on

analysis. Please expand

- i) Dr. Hauchman noted that Governor Whitman made this one of her top 3 priorities during her confirmation hearing. He is getting signals from OW that this will be important. We need to step up to the plate more to provide the science to be able to do this.
- f) the Department of Defense was missing from these interagency collaborations. Why? How can these links be made they have resources
 - i) Dr. Scherago noted that DOD has been willing to step up to the plate in Global Change. Drs. Vandenberg and Francis noted that DOD has been very active in PM and endocrine disruptors too
- g) how many NPDs can there be and what is the longevity of these efforts? Is there a fixed number?
 - i) no, there is not a set number. There are 16 multiyear plans and only about a half dozen NPD.
- h) the NPDs are in laboratories and are dependent on the lab for travel support. If funds need to be directed to another lab is there a way to move money from ORD headquarters
 - i) it would be helpful to have an extra set of hands to help.

The Committee took a break at 10:30 am

Planning for the May Budget Review -- The Committee was briefed about the Agency's progress in preparing a policy budget and how it will plan for the proposed May review of the Agency's policy budget by Ms. Nancy Gelb , Director of the Annual Planning and Budget Division. She discussed:

- a) the GPRA requirements
- b) EPA's planning budgeting and analysis activities
- c) EPA's 10 goals
- d) the S&T budget
- e) the 2001 and 2002 budgets (See Handouts)
- f) EPA – 5-year strategic plan, annual performance plan for FY 99 and annual performance reports
 - i) the dollars and annual plan are tied
 - ii) EPA requests money by goal and objective but Congress provides the resources by the old office-specific accounts
 - iii) EPA's Operating (Op) plan should be in place within 60-days after the budget is passed but it never is. As we speak EPA getting the op plan approved by Congress
- g) She can't give the details of the FY 2001 op plan because it is not approved. But she did say that there is a \$17 M recission (a .22% cut of the total budget). There are also about \$50 M in earmarks

Questions included:

- a) which budget will see in April
 - i) the FY '02 budget. It was pretty much developed on the FY '01 enacted

- budget of \$7.8B. Note that it includes about \$500 M of pork so about only about \$7.3 B comes to EPA
- b) some reports in Houston Newspapers that the \$500 M will be removed from the budget. Is this true?
 - i) EPA never requests pork. Congress feels differently so she doesn't think that there is any risk of this. The President is trying to keep the focus on the tax cut and away from these other issues. For FY '02 we are talking about the Bush budget – see handout with pages copied from the blueprint (Bush budget) document. This year the Agency is putting together the budget in 4 weeks compared to the normal 4 month process
 - c) what is the hearing schedule?
 - i) the House appropriations hearing is May 9 and 10; the Senate appropriations hearing is June 13
 - d) Will there be changes in the FY 2003 budget?
 - i) The budget this year is really a different animal. Bush focused on his campaign themes on the tax cut. So the Agency's budget is pretty much straight lined
 - ii) For 2003 think it will be a different story. Will have had time to think, will have policy staff (AA's etc.). Will have a policy budget going forward beginning about the same time as the hearings. Start with Agency goal teams and will frame the process with respect to meeting past goals and framing the goals for the future
 - e) can the strategic plan change fast enough to affect the FY '03 budget?
 - i) yes
 - f) how can RSAC impact the 03 budget?
 - i) engage at the front end
 - ii) early in the planning process (i.e. during the April/May time frame). EPA engages the states and tribes who provide EPA with a memo of their priorities and issues goal by goal. It may be a model for RSAC to consider how to engage in its views about what should be considered in the budget process to the OCFO or the Administrator. Consider this as a way to get in the game early. Don't worry about the budget levels but the Strategic issues, building on the "S" in RSAC
 - g) sounds like we're hearing that the budget will be straight lined, not only overall but with respect to internal specific items in the budget. Should we look at our past budget comments and think about how relevant they are for this budget
 - i) it would be a good idea to use the FY 2001 commentary as a starting point and tweaking when the FY '02 budget comes on April 3
 - h) can we see Op plan by April 3?
 - i) Not until Congress approves

Mr. Ray Garant, Senior Associate for Environmental Policy with the American Chemical Society (ACS), then described his organizations efforts to track and lobby for science funding in Federal Agencies, including EPA. His comments included:

- a) they have been tracking EPA for about 10 years
- b) started with NSF, EPA is the 4th Agency they tracked. Now they track 7
- c) They follow the science budgets and do advocacy for more funding for science
- d) His comments are in the context of advocacy
- e) they are looking for a message for Congress to justify the funding they think is needed
- f) They focus on ORD whose budget is harder to track than you would expect
- g) ORD does not exist as a funding unit
- h) last year was an interesting year because ORD was highlighted as the 21st century research fund
- i) ACS is still pegged to ORD because they have this historical data
- j) In the FY 1981 budget ORD was 11.8 % of the agency's overall budget
- k) Last year's budget which was increased by 7% over the year before was 10% below where it was in 1981
- l) A lot of time when you look at budgets missing the government request for ORD – \$530 M for ORD for FY '01
- m) EPA requested that it be reduced in funding from the previous year because the government doesn't carry the earmarks forward
- n) when Norine Noonan talked about the requested \$530 M budget she said it was an increase over baseline level, but that is not how it played in Congress, because the earmarks were Congress' earmarks and they don't want them to be removed
- o) the FY '01 was an unusual year because Congress added the money for earmarks
- p) Congress saw the 21st century fund and ORD being highlighted, yet the President's budget request was to lower ORD's budget
- q) \$634 M would bring ORD back to the FY '81 level
- r) there's not a chance that it will pass but if you don't ask you never will get the ORD budget increased and ORD will be open to greater cuts on the Hill if we don't make this case
- s) can't get a handle on the budget numbers because the Agency can't release the numbers
- t) some of the difficulties ACS faces and RSAC might face
 - i) Getting and presenting information
 - ii) Have to try to figure out several budgets every year
 - iii) Have the ORD briefing, but you need to know rest of the S&T budget too
 - iv) GPRA Goal 8 won't give you the entire S&T budget either as some is trust fund money, some is pass through money, etc. but this is not S&T money

Questions that followed the budget presentations included:

- a) don't see OSWER on the budget handout
 - i) when the S&T budget set it up decided to include ORD and offices with Laboratories in this account. OSWER does not have a laboratory. That doesn't mean that OSWER does not do science

Mr. Garant noted that ACS is talking to the Appropriation Committee about ways to tease out the R&D and S&T budgets. GPRA was supposed to do this but from a budget perspective. GPRA has made the situation worse, because it puts a 3rd layer on top of the other numbers.

- a) Note that there is not the interest in EPA's science budget as there is in the other science budgets
- b) the bread and butter for the science community is NSF, DOD, etc
- c) ACS wouldn't track EPA's budget if it depended on number of chemists engaged. There is focus is because it EPA's science budget provides a source of sound science for the Agency's regulations
- d) No one else is talking about ORD's research program to Hill
- e) Hill now thinks ORD has done a better job because of Dr. Noonan's face time on Capital Hill and program directors access
- f) there is still plenty of room to get involved. This committee could do more
- g) His perspective was RSAC analyzed the budget when the ink was drying, but did it earlier in the process than this year which helped Capital Hill and organizations like ACS
- h) the earlier you engage the more effective you can be
- i) At DOE Mildred Dresselhouse trying to get Advisory Board member to craft a message to justify an increased budget for unmet needs.
- j) When RSAC sees EPA's FY '02 science budget look back at FY '01 budget where do you see unmet needs – this is the message to take to the Hill
 - i) what are the unmet needs
 - ii) what would the extra budget do
 - iii) if there were a budget cut where would you take it
- k) addressing these questions would help strengthen ORD's budget on Capital Hill

Questions included:

- a) do you testify or do you work behind the scenes?
 - i) mainly behind the scene
 - ii) ACS has not yet asked to testify during the public input hearing scheduled March 19
 - iii) They generally work with the appropriations committee staff
 - b) are we hearing that the focus of our efforts should be on the FY '03 because it is too late to impact the FY '02 budget
 - i) no, the FY '03 budget will depend on the FY '02 budget
 - ii) ACS will provide input to the '03 budget in about 2 months to Whitman
 - iii) a statement about the FY '02 budget in May or June is not a waste of time
 - iv) For FY '03, talk to the new AA for ORD as soon as he/she arrives
 - v) send a note to Whitman to help her thinking, etc.
 - vi) the past Administration targeted this budget to decline. Anything you can do to reverse would be good. Don't give up on FY '02
- (Mr. Garant noted that RSAC has internal EPA influence so it needs to look at how they craft the budget, but should look at both ways and point out the difference.)
- c) In making an effort to increase the ORD budget we have the impression that there have been sufficient resources for ORD in the past. What messages would Congress listen to regarding the current budget shortfall for ORD
 - i) they been higher in the past and no reason to be lower now
 - ii) Republicans have focused the Agency more on a risk model and a more

- science-focused mode. Better science for decision-making is one of them. This will be consistent with what the Administration will say but whether the Administration will make that case remains to be seen
- d) global climate change has changed the discussion. People against the Kyoto convention said sending more money to EPA would support Carol Browner's political allies. Hope to stay away from this line of thinking in the Bush Administration to focus on how needs can be met
- e) Mr. Garant offered to help RSAC as much as the Committee wishes in the future

Mr. Cooper from the American Association for the Advancement of Sciences noted that AAAS produces a report every year on the President's budget. It should be available in May. It is a collaboration with about 20 societies including the ACS. AAAS would be willing to provide RSAC with any information that would be helpful. They will have preliminary information by mid-April

In the discussion that followed, members noted:

- a) each RSAC member can identify a few main areas that are being underfunded in the budget. In the case of EPA's Air Program PM has sucked up too many resources
- b) we need concrete examples of what can't be done because of resource limitations
- c) we could work within our individual communities to identify strategic areas within the EPA goal structure that are missing and also to identify needs that fall between the goals. For instance atmospheric deposition and ecosystem protection. EPA now defines cross-cutting as cross-cutting efforts within the existing EPA "stove pipe" structure. We need to start talking about chopping the stove pipes off and working to see how total research can cut across the spectrum of environmental science needs
- d) OW should be interested in endocrine disruptors
- e) with a little preparation RSAC could come to the May meeting and make a sensible request for an increase in the ORD budget
- f) the Agency needs to think about what is the downstream effect of not doing research now (e.g. PM). This needs to be done in a multi-year plan
- g) we have made an impact in terms of looking at the planning process and how the agency does research. RSAC has not made much impact in terms of influencing resource levels. Have put in statements in the reports for the past several years about the need for more resources but it did not influence the prior Administration. May be different with a new Administration. Part of the task is to educate people on the Hill that this is a sensible investment
- h) the bigger task is to convince the Agency itself that it needs more resources, because if we go beyond offering advice to EPA we may be at cross purposes with our advisory role. Need a multi-pronged approach. That might mean taking more critical looks into programs and recommending that the Agency not do certain things because of budget shortfalls
- i) particularly with the new Administration we may be able to shape the FY '03 budget. To do this we need something in hand by the May meeting

- j) we can't just say we need more money. We need to be able to show it is needed. We have an opportunity for the FY '03 budget to offer strategic thoughts
- k) one thing the RSAC has not done is to put together a sustained program to get the message across that the following 8 things have not been done, here's what it would cost to do these things and here is why they are needed
- l) with a straight line budget inflation keeps eating into it. What are the 2-3 key messages we want to convey? Can we build on the past reports of NAS, RSAC, etc.

The committee adjourned at 12:00 pm for lunch

Planning for the Budget Commentary – The points discussed included:

- a) Are there specific themes/criteria to test the budget against?
 - i) Past SAB reports
 - ii) Past Academy reports
 - iii) Administrations priorities
 - iv) Other
- b) Are there a few (2-3) key messages RSAC would like to convey?
- c) prepare for FY '03 commentary
- d) build on past messages
- e) get ready for budget review

Points raised during the discussion about how to do it included:

- a) for the FY '02 budget focus on the critical research aspects that we think are not funded or that are underfunded and will likely be a problem for FY '03 and beyond
- b) the mechanism could be through the report to the Administrator, and it could provide an entry card for a subsequent discussion between the Administrator and the RSAC chair and perhaps a few others to discuss how we view the current state of research in EPA and where it could or should go
- c) we need to avoid thinking of every problem as needing to be solved through a budget increase. Some of the linkage actions discussed earlier could be done right now
- d) in addition to preparing a report like we did in the past we should do some preparation in the advance (e.g. linkages)
- e) a couple of illustrative examples could be of help. There's lots to be gained from cross program planning

Instruction 1: Dr. Fowle should engage Dr. Seeker to help with overall planning for the report

- f) one point to raise in the report is to strengthen the scientific staff (e.g., aging workforce, low FTE ceiling prevents conversion of post docs)
- g) documenting the success of the STAR program
- h) elevate the issue of bringing on science leaders onto EPA team. We could urge the need to nominate the ORD AA quickly especially if there are plans to redo

strategic plan. It was noted that RSAC may want to talk to John Graham because the Post reported that he was nominated to head the Office of Regulatory Information and Assessment in OMB

Dr. Preuss noted that RSAC would be most effective if it limited its comments to two or three points. One of the problems the committee has had trouble with in the past is that it made too many recommendations. Also, with respect to making an impact on the Agency's FY '02 budget, May is too late, but it is not too late for FY '03. Lastly, some of the things being suggested have to be argued and documented more rigorously. Each is probably of interest to some members of the committee but if any point is to have an impact it must interest the whole committee rather than a member or two.

- i) that's why suggested we get prepared for may because in the past we didn't have time to prepare and think
- j) what are the 2 or 3 key messages that you really want her to understand? Once we understand what those are we can wrap other things around it (the items below were identified by RSAC and captured on the white board during the meeting)
 - i) personnel to support EPA's science mission
 - (a) aging workforce
 - (b) maintaining competence
 - ii) National Program Director System must be maintained if the Agency is to continue successfully integrating key programs
 - iii) Nominate the AA for ORD soon
 - iv) would like to see the R&D and S&T budgets increase for the unfunded or significantly underfunded science areas for these reasons X, Y, and Z
 - v) need linkages across multiyear plans
 - vi) stay the course for peer review
- k) would it be useful to have some metric like Dr. Oppelt handed out yesterday regarding performance metrics and how to design the program and emphasizing the need for an hypothesis based research process
- l) note that the research produces outputs but the policy determines the outcomes
 - i) need to keep in mind that EPA is more than just regulations
 - ii) ORD has to take responsibility for research outputs
 - iii) Value of research would be strengthened if could show how it supported decisions, but making those linkages is difficult
- m) the whole assumption of the agency is that contaminants are harmful. Can you show less disease if this contaminant is controlled
- n) global change gives the best example. Says what will be done by 2004 and what the projected outputs are expected
- o) whatever we need to put out needs to have rigor behind it. Take for instance the aging workforce. If they are replaced with whom? what type of expertise is needed? How do you use your hiring capabilities to replace, grow, evolve, a staff etc.? Don't want to hire after people have already left; a smooth transition requires bringing people along
- p) a question was put to Mr. Garant - have you been able to break out EPA's S&T budget

- to level funding regarding how much is available for new hires, etc
- i) yes it is more than hiring but is also travel and training. ACS has not evaluated and stated “here is what you’d need to get back up to par”
- q) a lot of these points are captured in the past reports which is ok but we need rigor behind the points raised
- r) how about quoting from the National Academy of Sciences
- s) still can get rigor with full scope of qualitative needs (e.g., need people with different skills than in the past)

RSAC then discussed options for actions:

- a) focused commentary on the need for an AA for ORD soon
- b) commentary on the FY ‘02 budget from the standpoint that it is level and if that continued for FY ‘03 the impacts on travel, training, etc. would not be advantageous for EPA because X, Y and Z (e.g. projects not done, new expertise is not brought in, etc.)
- c) commentary on broader strategic issues
 - i) how to think of other ways to protect human health and the environment for the U.S. and the world (e.g. look at larger endpoints and track it back)
 - ii) A strategic way of thinking about things for the FY ‘03 budget. Shouldn’t say how many dollars should go here and how many should go there but rather, things have changed we’re not just cleaning up old sites, etc. Gets back to level funding for ORD will not cut it from a strategic science program perspective
 - iii) a well functioning ORD is critical to EPA and should get an AA for ORD sooner rather than later
 - iv) if going to rethink the strategic plan the AA for ORD should be involved

INSTRUCTION 2: Dr. Fowle will check with Dr. Barnes to determine if any other part of SAB preparing a commentary about the need to nominate the AA for ORD soon. Alert Dr. Glaze to the urgency of this issue and ask that the commentary be sent before the next SAB meeting

ACTION 2: Dr. Loehr will prepare a draft for RSAC to consider

The committee agreed to the following:

- a) regarding action Item b - flatline budget – the committee agreed to move forward and request specific numbers
- b) regarding action item C – broad strategic issues Dr. Hopke volunteered to write a draft commentary on linkages for the multiyear plans and will send it to Drs. Bull and Loehr to comment on the first draft
- c) Dr. Murarka will draft a commentary about the NPD consultation and how important this program is

Adjournment

There being no other business, Dr. Loehr adjourned the committee at 2:40 pm EST.

Respectfully Submitted,

/Signed/

John R. Fowle III, Ph.D.
Designated Federal Officer
Committee

Certified as True,

/Signed/

Raymond Loehr, Ph.D.
Chair, Research Strategies Advisory

ATTACHMENTS

Attachment A -- Roster

Attachment B -- Federal Register Notice

Attachment C – Agenda